

WHAT IS CLAIMED IS:

1. A display device comprising:

a light source for emitting a light;

5 a light modulation element for modulating the  
emitted light; and

picture signal inputting means for receiving a  
picture signal from the outside and inputting a driving  
signal for driving the light modulation element to the  
light modulation element, in which the light modulation  
10 element modulates the light based on the picture signal  
and an image is displayed,

wherein the picture signal inputting means  
comprises target light amount calculating means and  
light amount controlling means, the target light amount  
15 calculating means being means for calculating an  
adequate light amount for an image display and the  
light amount controlling means being means for  
receiving the signal from the target light amount  
calculating means and controlling the light so as to  
20 obtain a target light amount; and

wherein the picture signal inputting means largely  
amplifies the driving signal when the picture signal  
has a low luminance and slightly amplifies the driving  
signal when the picture signal has a high luminance.

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2. The display device according to claim 1,  
wherein, when the picture signal has a high luminance,

a pseudo multi gradation processing is executed.

3. The display device according to claim 1,  
wherein the light amount controlling means comprises a  
5 member for converting the light to a polarization light  
flux and a light amount adjusting member for  
controlling a permeable amount of the polarization  
light flux and wherein by changing a rotational  
position of the light amount adjusting member, a light  
10 amount is controlled.

4. The display device according to claim 2,  
wherein the light amount controlling means comprises a  
member for converting the light to a polarization light  
15 flux and a light amount adjusting member for  
controlling a permeable amount of the polarization  
light flux and wherein by changing a rotational  
position of the light amount adjusting member, a light  
amount is controlled.

20 5. The display device according to claim 3,  
wherein the light amount adjusting member is a phase  
plate.

25 6. The display device according to claim 4,  
wherein the light amount adjusting member is a phase  
plate.

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7. The display device according to claim 2,  
wherein rotation of the light amount adjusting member  
is executed by an ultrasonic motor.

5           8. The display device according to claim 3,  
wherein rotation of the light amount adjusting member  
is executed by an ultrasonic motor.

10           9. The display device according to claim 4,  
wherein rotation of the light amount adjusting member  
is executed by an ultrasonic motor.

15           10. The display device according to claim 5,  
wherein rotation of the light amount adjusting member  
is executed by an ultrasonic motor.

20           11. The display device according to claim 6,  
wherein rotation of the light amount adjusting member  
is executed by an ultrasonic motor.

25           12. A display device comprising:  
          a light source for emitting a light;  
          a light modulation element for modulating the  
          emitted light; and  
          picture signal inputting means for receiving a  
          picture signal from the outside and inputting a driving  
          signal for driving the light modulation element to the

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light modulation element, in which the light modulation element modulates the light based on the picture signal and an image is displayed,

wherein the picture signal inputting means  
5 comprises target light amount calculating means and light amount controlling means, the target light amount calculating means being means for calculating an adequate light amount for an image display and the light amount controlling means being means for  
10 receiving the signal from the target light amount calculating means and controlling the light modulated by the light modulation element so as to obtain a target light amount; and

wherein the picture signal inputting means changes  
15 a signal amplification factor for changing input output conversion characteristics corresponding to an output of the target light amount calculating means.

13. The display device according to claim 12,  
20 wherein, when the picture signal has a high luminance, the picture signal inputting means amplifies by an amplification factor not more than the amplification factor in the case of the picture signal having a low luminance.

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14. The display device according to claim 12,  
wherein, when the picture signal has a low luminance,

the signal is amplified by an amplification factor of 1  
or more.

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